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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/809,501	03/26/2004	Kazuhiro Oki	8012-1240	7886

466 7590 12/21/2010

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EXAMINER	
PADGETT, MARIANNE L	
ART UNIT	**PAPER NUMBER**
1715	

NOTIFICATION DATE	DELIVERY MODE
12/21/2010	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

DocketingDept@young-thompson.com

Office Action Summary	Application No.	Applicant(s)	
	10/809,501	OKI ET AL.	
	Examiner	Art Unit	
	MARIANNE L. PADGETT	1715	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *8/20/2010 & 10/19/2010*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *48,49 and 52-56* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *48,49 and 52-56* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *10/19/10*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

1. A **Request for Continued Examination** under **37 CFR 1.114**, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on **8/20/10** has been entered.

It is noted that applicant's amendment to the independent claim has reintroduced limitations with respect to angle which were previously discussed, but in the present claims lack context that these limitations had in the original claims. On the other hand, applicants have added the limitations from now canceled claims 57 & 58, to independent claim 48, but with the context that the protrusions & grooves are formed on the condensing surface that faces the coating layer surface that is being dried. However, the cited support (page 15, line 20-page 16, line 22 & figures 2A & 5-6), is not all consistent with new claim language with respect to condenser structure, especially the configuration of the gutter, as was also previously noted.

The examiner notes that the amendments to dependent claims 54 & 55 are consistent with figures 2A & 5-6 that illustrate the gutters position on the end of the condenser closest to the entrance, i.e. upstream position while figures 3-4 provide illustrations of the claimed integration of the protrusions & grooves of the condensing member with the gutter system. The amendment to claim 56 has also corrected previous support issues with respect to its claimed distance.

The 102 rejections in the action mailed 10/22/10 with respect to **Reznik** (4,694,586) & **Surprenant** (3,539,205) have been overcome, as neither of these references employ a condenser surface structure that can be said to have protrusions and grooves on the condenser surface, plus a gutter used therewith, however obviousness considerations remain, as will be further discussed below.

2. **Claims 48-49 & 52-56** are rejected under 35 U.S.C. **112, first** paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not

described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Applicants have added new limitations with respect to the claim of condensing & recovering solvent vapor, where it is noted that the configuration with respect to the protrusions & grooves on the condensing surface of the condensers that faces the surface of the coating being dried, is supported by the configuration as shown in figures 3-4, which illustrates protrusions 43a & grooves 43b, and which as discussed on page 15, lines 20-22 & page 16, lines 5-8, as is consistent with the set of figures 2A & 3-6, the grooves & protrusions, plus the plates (condensing surfaces) on which they are formed, can be said to be parallel to the movement (i.e. feeding) direction of the web & coating surface. **However**, in combination with this configuration, applicants have also newly claimed "wherein **said gutter** is disposed in **parallel** to a **transporting direction** of said web" (emphasis added), which is not only essentially unsupported, it is essentially contrary to illustrations of the gutter **as a whole**. Particularly note in applicants' cited figures 2A & 5-6, that gutters 43c=44c= 45c & 73b=74b=75b are on the end of the overall condenser structure, where if one consider the gutters orientation by its length (not actually necessitated by the claim language, but the most logical dimension to reference), from the figures, one could at best describe that part of the gutter at the end of the condenser as being perpendicular to the direction of web movement & parallel to the width of the web, although the lip of the gutter as it extends up from the base of the gutter (i.e. the height of the wall of the trough of the gutter) as illustrated in figure 6, is a tiny piece of the gutter, which part could be described as oriented parallel to the transport direction, but one would not consider this minor part of the gutter's structure as providing the overall orientation of the gutter as a whole. There is also a portion of the gutter which comes off the corner of the condenser as illustrated in figure 3, which can not be clearly identified with any of these orientations, hence applicants' amendments to the specification with respect to the gutter, are not only essentially unsupported, they are essentially contradictory of the disclosure, thus are **New Matter**. Note if one considers the claimed

orientation of the gutter to represent orientation of the most logical dimension of the gutter (i.e. its length), the claims cannot be said to read on anything that is actually disclosed in applicants' specification, however if one considers the claimed orientation of the gutter to be read on any tiniest piece of a gutter that is parallel to the movement direction of a substrate web, then almost any three-dimensional object (any object in the real world is 3-D) will have some tiny piece thereof parallel to or close to parallel such a movement direction, or at least a cross-section through one dimension in the movement direction; i.e. either the claim with this limitation is prohibited from describing applicants' actual disclosure, or virtually any gutter structure will read on it. Neither scope is suggested by the original specification.

With respect to the amendment requiring "**transporting** said moving web at **an angle** from 60° to 90° from a horizontal direction after **said applying**, said surface of said moving web being directed **upward when** the angle is less than 90°" (emphasis added), which is related to limitations previously deleted, but is not identical thereto; applicants have not cited specific support for this presently claimed scope, however in applicants' Remarks, on pages 8-10 discuss this orientation with respect to figures 2A & 5-6, page 12 & paragraph bridging pages 4-5, but the figures are only relevant to angles employed inside the casing of the drying device & during drying. Applicants' claim new limitation is unlimited as to when the angle of transport is applied after coating, thus has no necessary connection to when drying is occurring. Furthermore, there is no requirement that this transporting angle occur inside a casing, and there is no requirement that the drying & condensing occur inside a casing; thus the reintroduced transport angle limitations have no necessary affect or connection on the condensing operation, nor necessarily occur at locations as illustrated in the figures. Therefore, applicants' discussion in their Remarks does not provide a clear showing of support for the amended scope. In further review by the examiner, she notes that the original language of **original claim 1** was directed to a method requiring "transporting almost vertically and upward said web immediately after coating;... drying said coating layer with a drying

device having a casing which surrounds said web just after the coating...", which further included the importance of the casing in the concentration of the solvent vapor & temporal limitations that while relative, are not unlimited as in the presently amended claim limitation; plus while "immediately after" & "just after" are not necessarily identical, they are on analogous timescales. Furthermore, **original dependent claim 3**, which depended from claim 1, supplied the limitation of "wherein said transporting direction is directed upwardly with 60°-90° inclination to a horizontal direction, and said coating surface is positioned upside", which limitation cannot be taken by itself, but is in the context of original independent claim 1, thus also includes temporal constraints & the presence of the casing surrounding the web during drying. In the body of the specification, the paragraph bridging **pages 4-5** is specifically discussing the casing of the drying apparatus surrounding the web with no specific discussion of angles; **page 10**, lines 5-15, generally discuss transport angle or entrance angle of the web with respect to entrance or exit to the drying apparatus of figure 1, which discussion is analogous to the generic discussion in the abstract; **page 12** has particular angular discussion with claimed values for related transport angle relationships, but again these are specifically related to the drying apparatus & it's casing; Experiment 1 starting on **page 27**, is specifically performed using the apparatus of figure 2, thus is restricted to its configurational limitations, i.e. its transport angles are relevant inside the drying apparatus & it's casing; the angles disclosed for the examples on **page 31** are all relevant to entrance & exit angles with respect to the casing of the apparatus, as is the experiment discussed on **page 33**; & the experiment starting on **page 36** employs figure 5 drying apparatus, with its casing & angles associated therewith. Therefore, no generic disclosures were found commensurate scope with applicants' present amended claim limitations with respect to the claim of an angle in the range used at any time after application of the coating & with no necessary relationship to the drying & condensing limitations, plus no relationship to either a drying apparatus or it's casing.

Just adding limitations to the claims without context, where context was present in the original disclosure & where the context is necessary for the limitation to have any necessary effects on other limitations of the process, such as is described in the specification, is neither convincing nor supported, but creates claims that are broader than the scope of the original disclosure, hence as presently written these amended claims further encompass **New Matter**. Also see other possible meanings encompassed by the new claim language with respect to transporting the moving web, which are not properly supported by the original specification, as discussed below with respect to 112 second clarity issues.

Applicants also amended dependent **claim 49** to be inconsistent with the support of the original disclosure, with it being indeterminate whether this amended claim & the closest disclosure found by the examiner actually overlap. Specifically, claim 49 has been amended to require "wherein said protrusions and said grooves are thermally insulated from said gutter", however as is clearly indicated in the previously cited figures (e.g. 3 & 4, etc.), the gutters are physically attached in a continuous manner to the grooves & protrusion structure of the condensing surface. Furthermore, what is specifically disclosed with respect to preventing condensation, other than where unintended condensing on surfaces found in the paragraph bridging pages 18-19, where the end of this paragraph teaches "as the cooled organic solvent flows in the gutters 43c, 44c, 45c, the temperatures of the gutters 43c-45c become lower. Accordingly, a device or a member for thermo-insulating is provided for preventing the condensation on the gutters and may be, for example, a device of heat-exchanging type in which water is used, a thermal insulator and the like". This disclosure provides thermal insulation somewhere on the gutter, but does not specify exactly where & certainly does not place it in between or with respect to the grooves or the protrusions, which addition of a device to thermally insulate the gutter from its source of condensed solvent would likely interfere with the flow of said solvent into said gutter! While the specification does not say where the taught thermo-insulating member or device is placed on the gutter (i.e. provides no support for claiming any specific location), reading this disclosure & considering where undesirable condensation could occur,

the examiner would logically expect, especially giving the mention of the cooling effects of the solvent flow on the gutter that the taught insulation would usefully have been placed on the backside of the gutter in order to prevent condensation underneath the gutter's trough caused by the cooling effect of carrying condensed solvent; thus preventing condensation from beading under the gutter & dripping onto other parts of the apparatus, etc. However, the page 19 teaching provides no motivation that the examiner can determine of interfering with the flow of condensed solvents from the condenser into the gutter, or any reason to insulate the condenser from the gutter, or vice versa, since as would be recognized by the competent practitioner from the specification's teachings, it is the liquid flowing in the gutter which cools it! For these reasons, the amendments to dependent **claim 49** are considered to be **New Matter**. Note, as no teachings were found in the specification that showed how one would thermally insulate a gutter, illustrated as directly connected to grooves & protrusions of the condensing surface structure, from the structure it is attached to, no reading in light of the specification can determine what structure claim 49 would read on.

The amendment to **claim 53** has changed its limitations, such that it can be considered to explicitly contradict independent claim 48 by requiring "said vapor of said solvent does **not condense** on said **protrusions** and **grooves**" (emphasis added); since claim 48 requires the protrusions & grooves to be formed on the condensing surface, where as illustrated in figures 3 & 4, the condensing surface is entirely either grooves or protrusions. Hence, without even reviewing the specification, the examiner suspects that applicants' amendment got the intended actions exactly backwards. However, considering disclosure, as such the paragraph bridging pages 18-19 discussed above, which is interested in preventing condensation on the gutters (without specifying where on the gutters), this disclosure does not provide any teaching on creating a temperature difference between the grooves + protrusions, & the gutter, let alone as claimed; therefore this claim also is considered **New Matter**, as well as being essentially unexaminable over prior art, due to its contradiction of the independent claim.

3. **Claim 53** is objected to under **37 CFR 1.75(c),** as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

As the limitation of **claim 53** requires preventing solvent from condensing where the independent claim requires it to be condensed, this claim contradicts the independent claim, thus does not properly further limit it.

4. The **disclosure** is **objected** to because of the following informalities:

In reviewing the specification in the examiner notes **page 36**, line 15, indicates "Experiment 4", while line 16 under this title indicates "Experiment 3" that appears to be erroneous, with it noted that there was a preceding Experiment 3 on page 33. Further proofreading is recommended.

Appropriate correction is required.

5. **Claims 48-49 & 52-56** are rejected under 35 U.S.C. **112, second** paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In **claim 48,** the limitation of "said surface of said moving web being **directed upward** when said angle is **less than 90°**" (emphasis added) is of confusing scope, since the preceding limitation of "**transporting** said moving web at **an angle** from 60° to 90° from a horizontal direction **after** said applying" (emphasis added) is providing a range of angles to choose from such that one could choose just 90°, but then it is unclear how the subsequently stated conditional limitation is intended to apply. Do applicants intend this to mean that if 90° from the horizontal is the only transport angle one employs after "the applying", that one could be going 90° in either direction from the horizontal, including downwards? The conditional phrasing implies a possible intent to employ multiple angles, but that possibility is not based on the claim language per se, but on previous now deleted limitations applicants previously

claimed, so it is not clear exactly what scope is presently intended, especially considering that the entire added new limitation with respect transporting is not properly supported in a context as provided in the original specification, thus cannot be read in light of the context that was not provided.

Also note in **claim 48** that the modification of the scope of the angle range by "from a horizontal direction" is reasonably taken to be providing the reference for how to determine the angle of travel (i.e. the basis for the angular measurement), but it could also be interpreted to mean that the web was in a horizontal position at some time before the claimed angle (or angles?) in the range, however whether the possible horizontal position would necessarily be after coating is not clear (the specifications apparatus figures wouldn't support a horizontal angle after leaving the coating station). Any of these possible interpretations may be considered with respect to application of prior art.

As noted above, **claim 49** contains New Matter & the original specification provides no teachings in light of which one may guess at a reasonable structure for the claimed configuration, especially as thermally insulating the gutter from the condensing surface structure would require placing something in between these structures to prevent thermal conduction, which potentially could block the flow of the condensed cooled fluid that the gutter is supposed to carry away (note what specification discussed that the problem was the cooling of the gutter from that cooled fluid, but it would be pointless to block the fluid flow that is the purpose for the gutters' existence). In light of the specification, it is unclear where thermal insulation is intended to be provide, however it is noted that a gutter that is not directly attached to a condenser system, but collects fluid from the condensing system could be considered to be effectively thermally insulated from the condenser surface due to lack of direct contact, as long as the air or atmosphere or the like, which is intervening between the condensing surface & the collecting site (i.e. gutter) has a lower coefficient of thermal conduction than the two structures' materials would in contact with each other. For purposes of examination over prior art, options such as physical separation or the like will be considered.

With respect to **claim 53**, as independent claim 48 requires that "said at least one condenser being composed of protrusions and grooves formed on said condensing surface, and a gutter; and recovering the condensed vapor of said solvent by said gutter of said at least one condenser", which is considered to mean that condensation is required to take place on the condensing surface, i.e. on the protrusions and grooves; therefore as claim 53 explicitly requires "said vapor of said solvent does not condense on said protrusions and grooves", it is completely unclear how one could perform the requirements of dependent claim 53 given the previous requirements of independent claim 48. This claim is considered completely unexaminable over prior art, as presently written.

6. The following is a quotation of **35 U.S.C. 103(a)** which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. **Claims 48-49, 52 & 55-56** are rejected under 35 U.S.C. **103(a)** as being unpatentable over **Reznik** (4,694,586), in view of **Perry et al**. (Chemical Engineers Handbook) &/or **Munter et al**. (WO 99/02933).

Applicants have reintroduced limitations with respect to transport angle, however broader than that of the original disclosure, but the angles as claimed are still relevant to **Reznik**, since the drying

process used therein is performed in a structure that is vertically oriented (i.e. 90° from the horizontal) & employs gravity to collect condensed solvent in upstream position (i.e. closer to the coating operation or in the direction from which the web substrate came). Further note as illustrated in Reznik's figure 1, the moving web is at 90° at all times after leaving the coating bath 12, therefore applicants' conditional limitation about the angle, when angles other than 90° are chosen is irrelevant, or in other words, maybe considered that, since there are no times after applying the coating when the angle of the web with respect to the horizontal is less than 90°, although their web is moving upwards, as is desired if the angle is less than 90°, but not prohibited at 90°. If this is not what applicants actually intended, it is what they have literally claimed.

Applicant to have also clarified their condenser structure with respect to protrusions, grooves & gutters, at least in some of the claims, and these now required configurations with respect to grooves & protrusions on the condensing surface, as opposed to merely part of the condenser, so differ from the teachings of Resnick et al. in that while Resnick provides condensing surfaces inside their drying apparatus that employ a condensation collector that may be considered a gutter, as an integral part of the overall condensing & collecting system, but may be physically separated, so it could be considered to be thermally insulated from the condensing surface, there is no disclosure that this condensing surface itself is made up of grooves & projections that may run parallel to the direction of web movement. However, it is old and well-known in the vaporization & condensation art to employ condensers in evaporator systems, where those condensers use some type of cooling for heat transfer (**Perry et al.,** p. 11-40), and where heat exchanger systems, including tubes or plates as the basic heat exchanger shape are old & well-known to use finned structures or corrugated structures (**Perry** et al., p. 11-10 including figure 11-9, 11-13 to 11-14 including figure 11-11), where as noted therein, various serrated or finned structures or the like may be employed when higher performance is required (discussion after figure 11-11), where the examiner notes higher performance would reasonably have been expected by one of ordinary skill in the

art due to increased surface area & funneling effects of such configurations. Furthermore, it would've been obvious to one of ordinary skill in the art to employ such known heat exchange structures as taught by Perry et al. in the condenser evaporator structures as taught by Reznik when higher performance is desired in collecting the condensed solvent vapors. It would also have been a matter of competent engineering to orient the fins or corrugated structures in the appropriate direction to cause efficient runoff of condensation into the collector as required by Reznik, which would reasonably have been in the direction parallel to the direction of web movement.

Alternatively, **Munter et al**. (WO), who also drying substrate surfaces & employing a condensing surface 22 to collect vapor in claimed orientations, may employ grooves & protrusions as illustrated in figure 3, and discussed on page 14, line 15-35+; employed in a longitudinal direction & oriented so as the ends of the grooves direct the condensed droplets to a collection device, which techniques would also been obvious to one of ordinary skill in the art to adapt for condensation direction control in the process of Resnick et al., as Munter et al. is also specifically directed to a coating process, thus demonstrating analogous, expected effectiveness and usefulness in the coating enduse. Also, the combination of these secondary references would have made it abundantly clear to one of ordinary skill the art that the use of the claimed grooves & protrusions structure is a conventional structure typically used for condensation collection, in the coating drying art particularly & in evaporation/condenser structures generally, thus would reasonably have been expected to be employed for its standard & known purposes.

It remains noted, as illustrated in figures 1-2 & 6 of **Reznik**, the drying process for coating on continuous substrates employs a **vertically** (i.e. **90°** as measured from a horizontal direction) moving substrate web, which has been coated, & passes through a drying structure parallel to the substrate on which evaporated solvents condense & drain with gravity into a collection tray integrated in the overall structure of the collection device, such that the condensate is collected, with the collection tray being downstream from the moving direction of the web. It is further noted that while the illustrated collection

trays 22 & 46 in figures 1-2 do not show any main surfaces parallel to the moving direction, solvent recovery tray 82 in figure 6 does include surfaces in its structure that are parallel as claimed, however the process in figure 6 is directed to continuous coating of discrete cylindrical substrates, but this particularly illustrated shape inclusive of parallel surfaces would reasonably have been expected to have been useful, regardless of whether the continuous processing passing through the vertical apparatus was applied to a continuous web or a continuous succession of discrete substrates, as the particular shape with respect to this collection drainage mechanism would reasonably have been expected to be independent of this aspect of substrate shape. It is additionally noted that whether or not any of the surfaces that are pieces of the taught collection trays are parallel to the substrate's movement direction would appear to be totally irrelevant to the function of the collection tray, with relevant features being whether or not it is in a position & size adequate to collect the condensate (i.e. adequately integrated with the condenser structure in order to perform its function), so some small portion merely being parallel (all that might be considered at all supported by applicants' specification) would have no necessary or particular effect on the solvent collection ability, thus no patentable significance to the process. Also see Reznik's discussion in the abstract; col. 1, lines 53-62; col. 2, lines 5-25, 40-51 & 58-66; col. 3, lines 1-8 & 52-65; col. 4, lines 23-53; col. 5, lines 18-25 & 30-53; col. 6, lines 19-27 & 46-66.

While Reznik's taught condensation & collection structure does not specifically illustrate nor discuss these two parts of the solvent recovery mechanism being physically attached or connected, neither do the schematic illustrations show the means by which the collection tray is held in place, hence it would've been obvious to one of ordinary skill in the art to employ means of holding the illustrated & taught collection tray into which the condensate from the condenser drains in place by means such as physically connecting the tray (i.e. gutter) to the condensing structure directly above it, as this would have been a logical & practical means of holding the tray in a desired position.

Reznik's teachings do not provide any specific dimensions for the structure of the apparatus they employ, however they do mention that the overall structure in which they are drying their applied coating on the substrate, condensing & recovering solvents therefrom has only a small volume surrounding substrate, which is taught to provide very significant savings in energy, not only in terms of recovering solvents, but also in terms of energy used heat the substrate (col. 4, lines 42-53), with figure 3 & col. 4, lines 3-12 discussing very close tolerances with the substrate passing through without permitting electrical contact or arcing to take place. Hence, while one of ordinary skill would recognize that coated substrate surface-condenser surface distance would reasonably have had some dependence on the overall dimensions of the apparatus & substrate being treated, this teaching indicates that one of ordinary skill in the art would reasonably have been expected to minimize this distance, so as to effect small volumes as taught, which reasonably would have been expected to encompass distances within the claimed range of 5-10 mm, as induction heating metal substrates & the condenser structure would reasonably have been expected to be & require minimization of the separation in order to be effective as taught.

Reznik teaches an additional feature that may be employed with their invention, where their condenser structure may have widened regions 76 as illustrated in figure 6, which widened regions (ref #76) are instrumental in providing a sharp borderline between air & solvent vapor (i.e. preventing turbulence) maintained within the enclosure at (col. 7, lines 11-18 & claim 11), where the examiner previously noted that the structure provided in the condenser due to these widened regions may be considered to provide protrusions and grooves in the condenser's overall structure. This structure is illustrated with respect to figure 6 that is directed to the discrete substrates, as opposed to the web substrates of figure 1, the teaching is disclosed as relevant to the invention as a whole, hence it would've been obvious to one of ordinary skill the art to employ it with any of the types of substrates discussed by Reznik et al., i.e. both continuous web substrates or successive discrete substrates, as the technique is not dependent on the type of substrate.

8. **New art** of interest includes: **Hilbig et al**. (4,985,152) with further discussion of condensation & collection techniques & configurations; plus **Huelsman et al**. (5,694,701), who has teachings related to Munter et al. (WO) discussed above, such as the identical figure 3 with its grooves & protrusions, and is cited on page 16 of applicant's specification as known prior art collection means useful with taught condensers.

The 10/19/2010 IDS's references of **Oda** (4,887,365) & **Tobisawa Seiichi** (JP 2001-314798) have further teachings with respect to web transport angles in drier devices with casings that are relevant to disclosures in the specification, but are redundant with respect to the above rejection for the claims, as presently written.

The reference of **Figiel** (4,753,735) remains noted as previously discussed with respect to the desirability of using insulation around structures for maintaining efficiency & conserving energy, but such limitation were previously canceled.

9. Applicant's arguments filed 8/20/2010 & discussed above have been fully considered but they are not persuasive.

10. **Any inquiry** concerning this communication or earlier communications from the examiner should be directed to **Marianne L. Padgett** whose telephone number is **(571) 272-1425**. The examiner can normally be reached on M-F from about 9:00 a.m. to 5:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Meeks, can be reached at (571) 272-1423. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-

direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Marianne L. Padgett/
Primary Examiner, Art Unit 1715

MLP/dictation software

12/10-11/2010